PENDING CLAIMS (AS AMENDED)

Claim 1. (Amended) A nucleic acid isolated from a plant comprising a nucleotide sequence coding for an amino acid sequence of a protein capable of producing raffinose by combining a D-galactosyl group through an $\alpha(1\rightarrow6)$ bond with a hydroxyl group attached to the carbon atom at position 6 of a D-glucose residue in a sucrose molecule.

Claim 2. (Twice Amended) The isolated nucleic acid according to claim 1, wherein the plant is a dicotyledon.

Claim 3. (Amended) The isolated nucleic acid according to claim 2, wherein the dicot[yledon] is a leguminous plant.

Claim 4. (Amended) The isolated nucleic acid according to claim 3, wherein the leguminous plant is broad bean.

Claim 6. (Twice Amended) An isolated nucleic acid comprising the nucleotide sequence of SEQ ID NO:1.

Claim 7. (Amended) The isolated nucleic acid according to claim 3, wherein the leguminous plant is soybean.

Claim 9. (Twice Amended) An isolated nucleic acid comprising

the nucleotide sequence of SEQ ID NO:3.

Claim 10. (Amended) The isolated nucleic acid according to claim 2, wherein the dicotyledon is a lamiaceous plant.

Claim 11. (Amended) The isolated nucleic acid according to claim 10, wherein the lamiaceous plant is Japanese artichoke.

Claim 12. (Amended) An isolated nucleic acid comprising a nucleotide sequence coding for the amino acid sequence of SEQ ID NO:6.

Claim 13. (Amended) An isolated nucleic acid comprising the nucleotide sequence of SEQ ID NO:5.

Claim 14. (Amended) The isolated nucleic acid according to claim 1, wherein the plant is a monocotyledon.

Claim 15. (Amended) The isolated nucleic acid according to claim 14, wherein the monocotyledon is a gramineous plant.

Claim 16. (Amended) The isolated nucleic acid according to claim 15, wherein the gramineous plant is corn.

Claim 17. (Amended) An isolated nucleic acid comprising a

nucleotide sequence coding for the amino acid sequence of SEQ ID NO:8.

Claim 18. (Amended) An isolated nucleic acid comprising the nucleotide sequence of SEQ ID NO:7.

Claim 30. (Twice Amended) A chimera gene comprising:

a nucleic acid isolated from a plant comprising a nucleotide sequence coding for an amino acid sequence of a protein capable of producing raffinose by combining a D-galactosyl group through an $\alpha(1\rightarrow6)$ bond with a hydroxyl group attached to the carbon atom at position 6 of a D-glucose residue in a sucrose molecule, and a promoter linked thereto.

Claim 31. A transformant obtained by introducing the chimera gene of claim 30 into a host organism.

Claim 32. (Twice Amended) A plasmid comprising a nucleic acid isolated from a plant comprising a nucleotide sequence coding for an amino acid sequence of a protein capable of producing raffinose by combining a D-galactosyl group through an $\alpha(1\rightarrow6)$ bond with a hydroxyl group attached to the carbon atom at position 6 of a D-glucose residue in a sucrose molecule.

Claim 33. A host organism transformed with the plasmid of claim 32, or a cell thereof.

Claim 34. A microorganism transformed with the plasmid of claim 32.

Claim 35. A plant transformed with the plasmid of claim 32.

Claim 36. (Twice Amended) A method for metabolic modification, which comprises introducing a nucleic acid isolated from a plant comprising a nucleotide sequence coding for an amino acid sequence of a protein capable of producing raffinose by combining a D-galactosyl group through an $\alpha(1\rightarrow6)$ bond with a hydroxyl group attached to the carbon atom at position 6 of a D-glucose residue in a sucrose molecule into a host organism or a cell thereof, so that the content of raffinose family oligosaccharides in the host organism or the cell thereof is changed.

Claim 40. (Amended) An isolated nucleic acid comprising (i) a polynucleotide having a sequence that encodes a protein having an amino acid sequence selected from the group consisting of SEQ. ID. NOS:2, 4, 6 or 8 or (ii) a polynucleotide having a sequence complementary to said sequence, or (iii) comprising a

polynucleotide that hybridizes to the polynucleotide (i) or (ii) in 0.9 M NaCl, 0.09 M citric acid at 65°C.

Claim 41. (Amended) An isolated nucleic acid comprising (i) a polynucleotide having a nucleotide sequence selected from the group consisting of SEQ. ID. NOS:1, 3, 5 or 7 or (ii) a polynucleotide having a sequence complementary to said sequence, or (iii) comprising a polynucleotide that hybridizes to the polynucleotide (i) or (ii) in 0.9 M NaCl, 0.09 M citric acid at 65°C.

Claim 43. An isolated nucleic acid of claim 1, encoding the amino acid sequence of SEQ. ID. NO.:2.

Claim 44. An isolated nucleic acid of claim 1, encoding the amino acid sequence of SEQ. ID. NO.:4.